

(21) Application No **9623125.3**

(22) Date of Filing **06.11.1996**

(30) Priority Date
(31) **95040332** (32) **06.11.1995** (33) **KR**

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(51) INT CL⁶
H04N 5/14 7/36

(52) UK CL (Edition O)
H4F FD12X FD30K FD30R FGM

(56) Documents Cited
EP 0624981 A2 EP 0533195 A2

(58) Field of Search
UK CL (Edition O) H4F FGM
INT CL⁶ H04N 5/14 7/34 7/36 7/46
Online: WPI

(54) Determining motion vector of search block using motion vectors of neighbouring blocks

(57) A motion vector detecting method determines a motion vector of a search block included in a search frame of a video signal by using motion vectors of processed neighboring blocks, wherein the search frame is divided into a multiplicity of blocks which include a set of processed blocks whose motion vectors have been determined, and the set of processed blocks contain the processed neighboring blocks which are neighboring blocks of the search block, by: (a) selecting an X-vector and an Y-vector among the motion vectors of the processed neighboring blocks, wherein the X-vector is a vector which is most similar to a horizontal vector and the Y-vector is a vector which is most similar to a vertical vector, to thereby provide a group of candidate vectors which include the X-vector, the Y-vector and a 0 vector; (b) deciding a candidate motion vector among the group of candidate vectors; and (c) providing the candidate motion vector as the motion vector of the search block in case a distortion between the search block and a predicted block corresponding to the candidate motion vector is smaller than a predetermined threshold value 138 and determining the motion vector of the search block by using a full search block matching method in case the distortion is not smaller than the predetermined threshold value.

FIG. 3



